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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,727	04/21/2006	Julia Ruth Dean	127645	4365

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EXAMINER

GRABOWSKI, KYLE ROBERT

ART UNIT	PAPER NUMBER
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3725

NOTIFICATION DATE	DELIVERY MODE
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08/19/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/576,727	Applicant(s) DEAN, JULIA RUTH	
	Examiner Kyle Grabowski	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 and 38-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 and 38-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The following non-final action is in response to the RCE filed on 04/02/10 and claims filed on 03/02/10.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-36 and 38-47, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoppe (US 4,307,899) in view of Howland et al. (US 6,089,614) and *Understanding Halftones*.

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5. In respect to claims 1-5, 10, 17-18, 20, 24, 27-33, 35-36, 38, and 43, Hoppe discloses a document or article carrying a security device provided on a substrate, comprising: at least one printed or transferred first area 11, each first area having at least one first color (red); at least one printed or transferred second area 12 (having the color white of printed layer 4) on the same side of the substrate as the first area, and wherein the first area 11 surrounds the second area 12, each first area being distinguishable from the second area, the first area defining a border of the second area, and wherein at least first area and the second area defines an image "7"; and a camouflage color ("reflective media") 8 provided over the image and at least an adjacent region surrounding the image on the same side of the substrate the camouflage pattern having a color (white) such that in combination with the first and second areas, the camouflage pattern renders the image substantially invisible when viewed under reflected light but visible when viewed in transmission (Abstract, Fig. 2a/b).

6. Although Hoppe discloses the a camouflage color, he does not disclose a pattern, for example a demetallized pattern, however Howland teaches a very similar invention wherein a camouflage layer 10 obscures underlying indicia in reflected light in a similar manner; the camouflage layer may comprise a highly reflective discontinuous (e.g. constituting a 'pattern') metal (Col. 7, 49 – Col. 8, 7) and It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the white print camouflage pattern taught in Hoppe with a partially metalized camouflage layer taught in Howland et al. The substitution would not destroy either invention, in fact, Howland et al. also discloses a pearlescent white camouflage (similar

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to Hoppe) as equally permissible. In both cases the camouflage is reflective, hiding underlying indicia, but permissive to transmissive light. Substituting the white ink layer for a demetallized layer would in Hoppe would not alter or destroy the invention, and would predicatively serve an identical function. A fine array of dots may be considered a "line pattern". (Col. 8, 5-7).

7. Hoppe discloses an offset printing process (Col. 3, 3-5) and that any number of colors (Col. 5, 27-31) may be used for the areas but does not explicitly disclose that at least one of the first and second areas comprises a discontinuous pattern. Inherent in an offset process however is a series of halftones (regularly spaced circular dots, also forming "fine lines") that in all but a few basic cases (pure magenta) result in a discontinuous pattern (e.g. lighter shades of red resulting from varying degrees of underlying paper or black halftones for darker shades). In any case, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a colored area on the security feature disclosed in Hoppe with a discontinuous pattern (e.g. pink; a red discontinuous halftone pattern) as the first area (or second area) in view of *Understanding Halftones*. The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary common sense. The properties of offset printing and their intrinsic halftones are known as taught in *Understanding Halftones*.

8. In respect to claims 6, 9, 13-14, 44-47, as discussed above, Hoppe discloses printing processes such as offset printing which provide dots or halftones of ink but does

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not disclose particular sizes or ink coverage of the halftones (used for either the discontinuous pattern of the first indicia or the camouflage pattern) however *Understanding Halftones* discloses the relationships between ink coverage, dot size, spacing, etc. and it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide dot or element sizes for the discontinuous pattern and camouflage pattern taught in Howland et al. with suitable sizes and/or ink coverage in view of *Understanding Halftones* to provide sufficient functionality to the invention as described (Abstract, Howland et al.). The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary common sense. Modifying ink density by spacing and size of halftones is well known in the printing art and it is within the technical grasp of one of ordinary skill in the art to modify these dimensions to provide an expected result (e.g. providing less ink coverage to allow for more light transmission). Furthermore, there is no criticality present in the specification for the specific ranges claimed (e.g. to “generally provide 50-80% ink coverage” or to provide a discontinuous pattern that will be “typically less than 1.5mm” Pg 4)

9. In respect to claim 7, Hoppe further discloses that the camouflage pattern 8 and area 4 are both white.

10. In respect to claims 8, 11-12, 15-16, and 23, non-specific color variations are taught by Hoppe as discussed above and further color variation (e.g. rainbow pattern) are within the technical grasp of one of ordinary skill in the printing art.

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11. In respect to claims 19, 21-22, and 25, Hoppe doesn't disclose the specific procedural steps however, although a product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

12. In respect to claim 26 and 41, Hoppe discloses that the printed layers may be applied as a patch (e.g. laminated plastic) which naturally utilizes an adhesive (Abstract).

13. In respect to claim 34, Hoppe discloses that the first and second areas may be overprinted with an image 9 (also "7") in white ink (Fig. 2a).

14. In respect to claims 35-36, Hoppe discloses using any desired inks with additional effects (Col. 4, 58-69) but does not disclose using specifically OVI or metallic inks however Howland et al teach that the first indicia 7 (comparable to the first area 11 in Hoppe) may comprise metal inks or optically variable inks (Col. 8, 12-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the fluorescent ink taught in Hoppe as a metallic or OVI ink layer in view of Howland et al. as an appropriate ink with additional security properties. Hoppe discloses that such properties are desirable for additional security (Col. 5, 23-28). Metal and OVI inks are known, as taught by Howland et al. and substituting the inks would

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provide the predictable result of incorporating the additional security benefits of metallic or OVI inks (for scanning or providing a optically observable feature).

15. In respect to claim 39, Hoppe discloses that additional printed effects “hallmarks” may be integrated into the surrounding areas (outside the security element) therefore rendering the area comparatively more transparent (not having the hallmarks which will add at least some opacity) (Col. 4, 58-67).

16. In respect to claims 40 and 42, Hoppe discloses that the substrate may be paper; the usage of the paper as a banknote is an intended use of the invention.

17. In respect to the newly amended subject matter of claims 33 and 43, Hoppe does not disclose “printed metallic inks” however while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997). (MPEP 2114). A sputtered metal coating and a printed metal ink result in structural equivalents as broadly claimed.

Response to Arguments

18. In light of the interview on 05/03/10, the examiner cedes that Hoppe does not disclose a camouflage pattern (that a solid color layer is not a 'pattern') and Hoppe in

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view of Howland and *Understanding Halftones* is now being applied to every claim to cover this deficiency.

19. The applicant contends that the application of Howland is improper, because it teaches away from Hoppe. The applicant contends that "Hoppe discloses forming a hallmark, which is visible under both transmitted and reflected light" (thus, not disclosing the camouflage making the image "substantially invisible", as required by independent claims 1, 38, and 41) however the examiner respectfully disagrees. Hoppe explicitly discloses that the "due to the homogenous uppermost color [camouflage] layer the underlying hallmark area becomes almost invisible when viewed by incident [reflected] light. This effect can be varied as desired by varying the thickness and color density of the uppermost printed coating)" (Col. 2, 30-35). "Almost invisible" and "substantially invisible" are considered synonymous. Claims 33 and 43 have a stricter limitation of "not visible" however the metal screen pattern taught in Howland does not disclose any underlying visibility in reflection. The examiner respectfully disagrees that the application of the metal screen in view of Howland teaches away from Hoppe, for at least the reasons stated in the quote above. Hoppe explicitly discloses variations in thickness and opacity may alter the condition of "almost invisible", thus one looking to Howland would find a camouflage layer providing additional opacity through a metallic coating.

20. Ultimately, the examiner remains unconvinced that the structure of the present invention is non-obvious over Hoppe in view of Howland and *Understanding Halftones*. In order for a functional limitation (e.g. not visible under a reflected circumstance) to

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distinguish from the prior art, the structure which gives function to the effect in the present application must be explicitly identified and then distinguished from the structure of the cited prior art. The structural distinction, rather than functional distinction, is important for at least the following reasons: claiming that the image of the present application is not visible under reflected light means that under *all* circumstances, it is not visible (irrespective of the degree, intensity, of the reflected light); further compounding this indefiniteness is that visibility is also dependent on the viewer (e.g. a trained banknote expert vs. a nonagenarian)

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle Grabowski whose telephone number is (571)270-3518. The examiner can normally be reached on Monday-Thursday, every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on (571)272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kyle Grabowski/
Examiner, Art Unit 3725

/Dana Ross/
Supervisory Patent Examiner, Art
Unit 3725